

AMIGA

WORKBENCH

\$2

RRP

Registered by Australia Post - Publication No. VBG 7930

Number 45

Circulation: 1200

February 1990



Picture: Digitised Jim Burns illustration

Next AUG Meeting

Sunday, February 18th at 2pm

(Doors open at 1pm, meeting starts at 2pm sharp)

AUG meetings are held at Victoria College Burwood Campus
Burwood Highway, Burwood - Melways map 61 reference B5.

Amiga Users Group Inc, PO Box 48, Boronia 3155 Victoria, Australia

Australia's Largest Independent Association of Amiga Owners
The *Amiga Users Group Inc* has no affiliation with Commodore
Amiga is a trademark of Commodore-Amiga, Inc

AMIGA Users Group

Who Are WE?

The Amiga Users Group is a not-for-profit association of people interested in the Amiga computer and related topics. With over 1000 members, we are the largest independent association of Amiga users in Australia.

Club Meetings

Club meetings are held at 2pm on the third Sunday of each month at Victoria College, Burwood Highway, Burwood. Details on how to get there are on the back cover of this newsletter. The dates of upcoming meetings are:

Sunday, February 18th at 2pm

Sunday, March 18th at 2pm

Sunday, April 22nd at 2pm

Production Credits

This month's newsletter was edited by Con Kolivas. Equipment and software used was: Amiga 500 with SIN500-2 memory board, Professional Page, and HP Laserjet with JetScript.

Copyright and Reprint Privileges

Amiga Workbench is copyright 1989 by the Amiga Users Group Inc. Articles herein that are copyrighted by individual authors or otherwise explicitly marked as having restricted reproduction rights may not be reprinted or copied without written permission from the Amiga Users Group or the authors. All other articles may be reprinted for any non-commercial purpose if accompanied by a credit line including the original author's name and the words "Reprinted from Amiga Workbench, newsletter of the Amiga Users Group, PO box 48, Boronia, 3155".

Contributions

Articles, papers, letters, drawings, cartoons and comments are actively sought for publication in Amiga Workbench. All contributions submitted for the purpose of publication that are printed in the newsletter are rewarded on the basis of one free public domain disk copy per column or half page printed with a minimum of one free copy. Contributions may be sent in on disk, paper or uploaded to Amiga Link or Amiga Link II in the area set aside for this purpose. Please send your contributions in text-only, non-formatted if they are on file and remember to include your address for return of disks and tokens for PD disks. **Absolute** deadline for articles is 23 days before the meeting date. Contributions can be sent to: The Editor, AUG, PO box 48, Boronia, 3155.

Membership and Subscriptions

Membership of the Amiga Users Group is available for an annual fee of \$25. To become a member of AUG, fill in the membership form in this issue (or a photocopy of it), and send it with a cheque or money order for \$25 to: Amiga Users Group, PO Box 48, Boronia, 3155

Public Domain Software

Disks from our public domain library are available on quality 3.5" disks for \$8 each including postage on AUG supplied disks, or \$2 each on your own disks. The group currently holds over 200 volumes, mostly sourced from the USA, with more on the way each month. Details of latest releases are printed in this newsletter, and a catalog disk is also available.

Member's Discounts

The Amiga Users Group negotiates discounts for its members on hardware, software and books.

Currently, Technical Books in Swanston Street in the city offers AUG members a 10% discount on computer related books, as does McGills in Elizabeth Street. Just show your membership card. Although we have no formal arrangements with other companies yet, most seem willing to offer a discount to AUG members. It always pays to ask!

Back Issues of Workbench

All back issues of Amiga Workbench are now available, for \$2 each including postage. Note that there may be delays while issues are reprinted. Back issues are also available at meetings.

Amiga Link I & II - Our Bulletin Board Systems

The Amiga Users Group operates two bulletin board systems devoted to the Amiga, using the Opus message and conferencing software. AmigaLink I and II are available 24 hours a day. AmigaLink I & II can be accessed at V21 (300bps), V22 (1200bps), V23 (1200/75bps) or V22bis (2400bps) using 8 data bits, 1 stop bit and no parity.

AmigaLink is part of a world-wide network of bulletin boards, and we participate in national and international Amiga conferences. AmigaLink has selected Public Domain software available for downloading, and encourages the uploading of useful public domain programs from its users. AmigaLink I (792-3918) is OzNet node number 8:830/324 and AmigaLink II (376-6385) is OzNet node number 1305/998

Newsletter Advertising

The Amiga Users Group accepts commercial advertising in Amiga Workbench subject to the availability of space at these rates:

Quarter page \$20
Half page \$40
Full page \$70
Double page spread: \$120

These rates are for full-size camera-ready copy or Professional Page format only. We have no photographic or typesetting facilities. Absolute deadline for copy is 23 days before the meeting date. Send the copy and your cheque to: The Editor, AUG, PO Box 48, Boronia, 3155, Victoria.

Amiga Users Group Committee

Co-Ordinator:	Neil Rutledge	597 0928	Highett
Ass. Co-Ord:	Chris Weam	369 4302	Laverton
Meeting Chair:	Arnold Robbins	808 0551	Box Hill sth.
Secretary:	Kid Currie	531 7282	Elsternwick
Treasurer:	Donna Heenan	543 7415	Clayton
Membership:	John Hampson	584 3921	Cheltenham
Purchasing:	Bohdan Ferens	792 1138	Dandenong
Book Library:	Ross Johnson	824 7026	Malvern
Disk Library:	Michael Lamb	752 2130	Ferntree Gully
Editor:	Con Kolivas	484 1339	Thornbury
Committee:	Peter Jetson	752 2053	Upper FTG
	Rod King	(059) 62 5805	Healesville
	Lester McClure	233 5664	Mount Waverley
	Chris Tremelling	N/A	Healesville

NWAUG committee			
Co-Ordinator:	Hugh Leslie	489 1584	Clifton Hill
Ass. Co-Ord.:	Kid Currie	531 7282	Elsternwick
Meeting Chair:	George Wahr	376 6180	Kensington
Mem. & Treas.:	Lawrence Hill	478 6145	N/A
PD :	Alan Cheng	380 5588	West Brunswick

Something that You Can do Via the Workbench

In the course of editing the following article, I saved it to disk with a filename of "FTPs", inverted commas and all. I thought it looked a tad daggy, so at the CLI I typed

```
rename "FTPs" FTPs
```

```
oops - it didn't like that. okay...
```

```
rename ""FTPs"" FTPs
```

didn't like that, either. Well, i'm not going to load up DirUtil just to rename one file (there's probably a CLI option that will do it, but I can't remember what it is). So, here's what I did:

```
copy df0:groont.info df0:FTPs.info
```

(groont.info is a DeluxePaint picture icon)

then, from the Workbench, I selected the FTPs icon, renamed it "FTPs" (thus creating a Workbench handle on the file I called "FTPs"), then renamed it FTPs (no inverted commas, which renamed the AmigaDOS file as well as the Workbench .info file). And when I looked at the directory from the CLI, it had been changed. (in fact, there are a number of doofy things you can do from the Workbench, like renaming your Workbench Disk as something like 'Alt-Space' {hold down the Alt key and press the space bar, that is}, which looks like it's removing the Disk's name. You can still see a telltale space in the window title bar, though).

saint nikolai

Communications: File Transfer Protocols

(note: the factual content of this article, such that it is, was lifted from PC-Update, the Melbourne PC User's Group Magazine, who, in turn, had lifted it from Brisbug. Any misleading information and out-and-out lies are, therefore, ALL THEIR FAULT.)

Okay. Let's assume that you have two computers connected, via their serial ports. They can be in the same room, connected by a 'crossover cable' (id est, one with at least 2 and 3 crossed, and a few others as well usually), or they can be connected via modems through the phone system (such that it is). They don't necessarily have to be the same type of computer, but it does help if their communications parameters (Baud rate, parity, stop bits and such) match. Now, if you have Terminal Emulator programs running on both of them (in short, a Terminal Emulator program will send what you type on the keyboard down the serial port), then what you type will appear on the screen of the other computer, and vice versa. Big Deal, you say? Well, most decent Terminal Emulators will also transmit files up the line in various ways, known as File Transfer Protocols. The simplest of these is Straight ASCII, or if you're not a vegetarian, Raw Text. The computer at one end is instructed to store away everything that comes down the line, and the computer at the other end funnels the file you want to transfer down to the first machine. Pretty simple, eh? What more could you want?

Error checking, for one thing. The telephone system wasn't designed with Computers and modems in mind (I don't know what Alexander Graham Bell was thinking of), so noise on the line might obscure a word or two when you're talking... you can always say 'Eh?' and get a re-transmission of the word you missed. If you were transmitting a Raw Text file at the time, the results vary from a few garbled characters to getting hung up completely. (If you've ever been on a Bulletin Board and the line seemed noisy, don't abuse the Sysop - it's entirely possible that Telecom decided to reroute your call up to the Pilbara and back, depending on how busy the local system was. All you can do is hang up, redial, grit your teeth and wait for optical fibre.) Another problem with Raw Text is that if you have a compiled program file, it is likely to contain all sorts of strange characters (that is, anything that isn't between A-Z, 0-9, or punctuation). These characters often have special meaning to Terminals (and Terminal Emulators): for example, Escape followed by a question mark looks pretty innocuous, but to a Prime Terminal, it means clear the screen. So, we also need to hide the characters as we send them (unless you get some sort of perverse kick about watching a terminal go up the wall as you send a binary file though it).

Enter XModem, the first File Transfer Protocol with Error Checking. When you instruct your machine to send a file via XModem, it breaks it up into chunks of 128 characters, and tests each chunk after it's sent, to make sure that it got through okay. Which is fine, but it means that the machine sends data for, say, seven seconds, then spends a second checking it, which is only 87 percent efficient. Let's increase the chunk size, so that we now send 1024 characters before checking. This is known as YModem (and also as XModem-1k).

That's more efficient, but we still have to stop while we're checking the data. Enter ZModem, the current favorite. Just from using it (and i'm not entirely sure about this bit), ZModem seems to use 256 character chunks (well, 'Packets' is a better term) when sending, and 1024 character packets when receiving. And, it does error checking while the transmission is taking place, so that in that regard, it's 100 percent efficient. Some implementations of ZModem also have recovery procedures, so if you do get cut off completely by the Telephonic Czars, you can resume from where you left off (very handy if you're sending big files).

Some details:

XModem

Two flavours: checksum XModem (where you add up all the characters in the block and do a logical 'AND' operation between the sum and hexadecimal FF): if the checksum as worked out at the sending side is different from the checksum as worked out at the receiving side, then either the data or the checksum is corrupt. Send that block again, thanks. and CRC XModem: Cyclic Redundancy Checking. This is similar to the aforementioned, but there is a more involved formula for calculating the checksum. Note: early implementations of XModem would break the file up into 128-character chunks, and if the last chunk didn't come out evenly, it would ADD STUFF TO THE END to pad it out. The nerve of some people!

Relaxed XModem

Exactly the same as XModem, but slowed down by a factor of ten. Lets you relax while the file is being transferred. (ha ha)

IModem

Some clever modems (as opposed to 'smart' modems) have an error checking feature built in, called MNP. IModem takes advantage of this, and all error-checking and re-transmission takes place on the modem level, so the computer can pretend that it has an error-free link, if both parties have the right sort of modems.

Sealink

An advanced form of XModem, will let you send more than one file in one go, but chiefly noted for the 'Sliding Window Protocol'. It may look pretty zippy, but there is a slight delay between sending a character and getting a response over the phone. Doing this overseas, through umpteen exchanges and a couple of satellites, can aggravate the delay to the point where it fouls up the error checking (imagine this: in Melbourne, 'Send, send send... okay, did you get that?' ten seconds later, in Novosibirsk, 'okay, we got that.' meanwhile, in Melbourne, 'oh, they must have hung up.').

TelinK

XModem, with an extra block at the start, with the file's name, size and date. Big deal.

Modem7

XModem again, but this version passes the filename before starting the transfer, saving the user from having to type it in. Common on CP/M systems.

Kermit

Allegedly a 'universal' protocol, to allow any computer to send files to any other computer (although, in my experience, there are too many parameters to configure; various implementations allow you to set some parameters, others don't. Aren't standards a wonderful thing?).

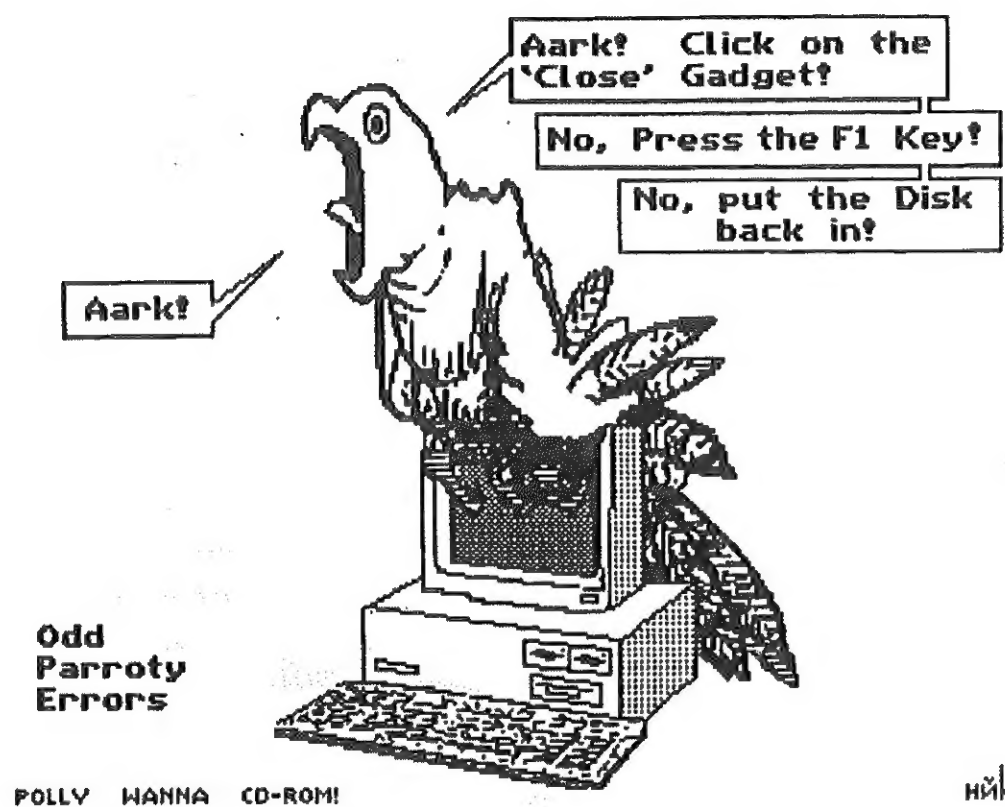
YModem-G

A hybrid of YModem and IModem. Also known as XModem-1k-g.

There are a slew of others, too, mainly in the IBM-PC world of terminal emulators; some programs have a File Transfer Protocol unique to that program or mainframe that they go with (like PrimeLink). If you're getting into the programming arena, why not make up your own?

well, endcli >nil:... saint nikolai

p.s. there is a place reserved in hell for the person responsible for the design of the mouse cable.



```

DEFINT a-z: COLOR ,2: CLS :OPTION BASE 1
ON BREAK GOSUB quit:BREAK ON
PRINT "AmigaBASIC PATTERN designer by Mark Kelly"
Set$=CHR$(127):Unset$=CHR$(183)
retry:
INPUT "Enter Pattern Height (2,4,8,16) ",n
IF n MOD 2 <>0 THEN retry
DIM byte$(n),byte(n)
rerun:
px=250: py=10: COLOR 3: CLS
LINE (px-1,py-1)-STEP (205,102),3,b
LOCATE 18,1: PRINT "ESC Save & Quit"
PRINT "Arrows Move cursor SPACE Toggle bit"
PRINT "X Erase S Save data"

start:
LOCATE 1,1: COLOR 1: x=1: y=1 'cursor posn
FOR i=1 TO n
byte$(i)=STRING$(16,Unset$):byte(i)=0
PRINT byte$(i) " &H00"
NEXT
WHILE a$<>CHR$(27) 'ESC to quit
COLOR 1,3:LOCATE y,x 'hilight bit
PRINT MID$(byte$(y),x,1);
COLOR 1,2
LOCATE 90,1: GOSUB key 'hide cursor:get key
WEND
quit:
IF NOT saved THEN GOSUB savepat
DIM r(2): FOR i=1 TO 2: r(i)=&HFFFF: NEXT 'fix cur-
sor
PATTERN r,r:COLOR 1,0: CLS
END

```

```

key:
oldX=x: oldY=y :a$=""
WHILE a$="" :a$=UCASE$(INKEY$):WEND
IF a$=CHR$(31) AND x>1 THEN 'LEFT
x=x-1
ELSEIF a$=CHR$(30) AND x<16 THEN 'RIGHT
x=x+1
ELSEIF a$=CHR$(28) AND y>1 THEN 'UP
y=y-1
ELSEIF a$=CHR$(29) AND y<n THEN 'DOWN
y=y+1
ELSEIF a$="" THEN 'TOGGLE BIT
a$=Set$
IF MID$(byte$(y),x,1)=Set$ THEN a$=Unset$
MID$(byte$(y),x,1)=a$
BINDEC byte$(y):byte(y)=dec:saved=0

```

```

LOCATE y,18:PRINT d$ " "
PATTERN ,byte 'make pattern
AREA (px,py):AREA STEP (200,0) 'show it
AREA STEP (0,100):AREA STEP (-200,0)
AREA (px,py): AREA FILL
ELSEIF a$="S" THEN 'SAVE
GOSUB savepat
ELSEIF a$="X" THEN 'ERASE
GOTO rerun
END IF
LOCATE oldY,oldX 'unhilight
PRINT MID$(byte$(oldY),oldX,1);
RETURN

savepat: 'write BASIC code to show pattern
LOCATE 22,1:saved=-1
INPUT "Enter filename or RETURN to cancel: ",file$
IF file$>"" THEN
OPEN file$ FOR OUTPUT AS 1
PRINT #1,"n="n-1": DIM Pat%(n)
PRINT #1,"FOR i=0 TO n: READ Pat%(i): NEXT"
PRINT #1,"PATTERN ,pat%"
PRINT #1,"AREA (300,0):AREA (600,180)"
PRINT #1,"AREA (0,180):AREA (300,0):AREA FILL"
FOR i=1 TO n:PRINT #1,"DATA &H"HEX$(byte(i)):NEXT
END IF
LINE (0,168)-STEP (600,8),2,bf 'zap line 22
CLOSE
RETURN

```

```

SUB BINDEC(byte$) STATIC
' 16 bit binary string to signed short integer
SHARED d$,dec,Set$: d$=0
FOR bit=1 TO 16
IF MID$(byte$,bit,1)=Set$ THEN d$=d$+2^(16-bit)
NEXT
d$="&H"+HEX$(d$) 'unsigned hex
dec=VAL(d$) 'signed int
END SUB

```

Miscellaneous game comments & tips

Allen & Ralph Weeks

For many months now, I've been thinking of something, anything, to write for WorkBench. My conscience has now been cleared.

Here follows some tips and info for a few games that my brother and I have discovered.

Populous:

First, some questions. Have you had any or all of the following occur while playing Populous: (a) slow motion; (b) two or more Influence Behaviour Icons lit simultaneously; (c) your opponent performing an Armageddon in under two minutes on a world under 50; (d) the computer dying after clicking on Zoom to Battle; and (e) a prompt to 'Insert Original Populous Disk in DF0:' after trying to load a saved game. (I have a 1.3 KickStart - this may explain for the bugs).

[Ed's note - Remember what I said about 1.3? Well, under my 1.2 KickStart, I've had no troubles at all]

Now for the tips.

To get really high scores, eg. 541900 points or higher, try repeatedly using Armageddon (you need plenty of Manna to do it).

The above score was made after nine (yes NINE) Armageddons. I jumped from world 63 (DOU***ME) to world 85 (COR***ME) -- a jump of 22 worlds! Beat that!

Strangely enough, when I tried again(I saved the game before using Armageddon), this time using 11 Armageddons I got a lower score. Even stranger, twelve Armageddons have the same result!

It is possible to turn off the eery wind effects by turning the music off, and then on again. You should have the wind turned off now. Turn the music off again for the optimum playing environment(the lack of music and wind can be useful, as I'm about to explain).

This use, is that when the music and wind is turned off, you'll hear the first few seconds of the music each time a Papal Magnet is moved. This comes in useful when you want to know if someones leader has died, if the opposition is invading, or if they are regrouping in a different area (in a leadup to a Knight).

Leader Board:

In Leader Board, it is possible to get into a 'mangled' mode. It alters the game, often changing the scale of the hole. When a hole that covers 500 yards is squeezed down into about 10 yards, it often looks 'cute'. The holes that change from 300 yards to 500 yards, with the player off the TOP view are extremely dull. Unfortunately, the game will crash after an unknown amount of time.

To get this 'wonderful cheat-mode', execute the following :-

1. Click on [1] while on the 'Select Number of Players' screen.
2. Click and HOLD ON TO the backslash gadget.
3. Release, and very quickly repress the mouse button. If you are quick enough, and if the mouse hasn't moved, the [R] gadget shouldn't light up.
4. Release the button again. Instead of the driving range appearing, you should be prompted with the 'Number of Holes' screen.
5. Select the hole/holes you want to play. You should now be playing the 'mangle mode'.

If your mouse button isn't up to scratch like mine, use the keyboard alternative for the mouse, <L-ALT><L-AMIGA>.

A word of warning. If the skip-a-hole command, <CTRL-H>, is used more than twice in a row, the game will probably crash. When <CTRL-H> is used, the game goes into putting mode, but the scene shows the rough, with no trees or change of ground.

Undocumented features of games in the Elite 'The Story So Far' Vol. 3 as discovered by my brother:

Live and Let Die - S toggles in-game sound effects/music
<ESC> ends game

Bombjack - ends game
<ESC> pauses game - press any key to restart

Thundercats - R ends game
<SPACE>pauses game - press again to restart

A review of the Promised Lands

Allen & Ralph Weeks

This is the first data disk for the game Populous (published by Electronic Arts). It contains five new sceneries, & 500 new worlds. It is a duel format disk, in that it will work on both the Atari ST and the Amiga.

The packaging is identical to the original Populous game, with the exception of a large orange sticker proclaiming 'The Promised Lands'. I was a bit disappointed at first because the back didn't show the worlds, but it was fortunate because it didn't spoil the surprise.

The documentation is one meagre sheet of paper, much smaller than the 29 pages of instructions for the original. It is accompanied by an offer to by a gold plated key-ring, but no sign of any warranty (the same as Populous).

The names of the worlds have not changed, though they are a lot harder to complete now.

For some strange reason, when you get the info on the next world (name, computers rating, etc.) the worlds are called Very Slow, Slow, Medium, Fast, and Very Fast.

The first world you come across, Genesis, is Revolution Francaise (French Revolution). This world has the same ground and water as Grass Plains, but the people, houses, knights and Papal Magnets have changed. This world is the Aristocrats (good) v. Workers (evil). We haven't worked out the goodies Papal Magnet yet, but the badies have a Guillotine.

Our least favourite, the Silly World starts at world five. This has totally new scenery, and is occupied by cute little green and red blobs. The reason why we don't like it, is that they die in their homes, and the houses don't look that good (poor excuse, eh).

Next comes the Block World, at world ten. This world would have better been named as LegoLand. Everything is made of Lego. The sea is a flat green board with waves moving through, the land is white blocks of Lego, the rocks are Technical Lego wheels, the people are Lego men and the Papal Magnets are yet to be interpreted. The houses are also made of Lego.

The Wild West comes in next at world fifteen. The land and water is the Desert World, but everything else is different. It is occupied by Indians (good) and Settlers (evil). The houses go from tee-pees to forts. The Papal Magnets are a Totem Pole and a Sheriffs Badge.

Our favourite world, the Bit Plains is at world twenty. The land is scrunched up computer paper. A nice touch is the perforations at the waters edge. The water has the words 'BULL-FROG', gently waving through it. The people are literally potato heads. They are bouncing potatoes with arms. The

Knights are bouncing, slightly squashed potatoes with arms and very long legs. The indestructable rocks are piles of 3 1/2 disks, and the other rocks are packets of cigarettes. The trees are cigarette stubs, tea cups, and pencils. Houses range from abacuses, to a small flat computer (VIC20?), to large computers that look like Amiga 2000s. This world is occupied by two teams of rival computer manufacturing companies. Commodore (good) and Atari (evil). Good has a mouse for a Papal Magnet, and evil has a joystick. The people here have seem to have a certain 'personality'. When a person is uprooted, it puts on a sad face for a second or two, and then bounds off again. When the knights kill someone, they bow their head as in respect to the deceased. They also have an interesting battle style.

An unusual thing that happens, is that if you go from the Promised Lands back to Populous, the people, flags, and land shown on the edge of the screen are of the last scenery you played.

My brother and I would give The Promised Lands nine and a half out of ten.

I found a good place to keep the instructions, were to sticky tape them on the back of the original Populous manual.

It is not copy-protected, costs \$29.95 and is well worth it. I bought it the first time I saw it in a shop (I'd read a review of it a few months before).

GRAPHICS-PALETTE

GRAPHICS DISK-ZINE FOR THE AMIGA

ISSUE No: TEN THREE DISK SET

- NOW WITH 40% MORE!!! -

INCLUDED IN THIS ISSUE:-

Reviews of the new font utility program JETMASTER, and pageflipping with ANIMATION. All about the new TV TEXT PROFESSIONAL (includes an animated tutorial). Over 150 Macintosh clip art drawings have been converted for your use. Also over 50 Clips (all original) for use with Professional Draw.

Complete details of the amazing NEW Amiga graphics format EXTENDED-HAM, put over 200,000 colours onto your screen! More listings of the latest software/hardware, plus a demo of the new 4,096 colour High Resolution mode from Digi-View 4.0. Hints and Tips, Articles, letters, How-To graphics and more!

STILL ONLY \$26.00 (Three Disk Set) plus \$2.00 p+p.

From: - FROMATE PTY LTD
P O Box 584
BOX HILL Vic 3128

PROPOSAL FOR A MAGAZINE ON DISK

by Norm Christian.

At last month's meeting I suggested that there would be many advantages in having a magazine on disk, for example the ability to display pictures, play music, use PD programs, etc. It was pointed out that we already have the ability to do these things via the bulletin board, however this is restricted to those who have a modem and I feel that a disk magazine should be available to ALL members.

It was not my intention to displace the present Workbench but rather to have an optional extra for those members who wanted something they could actually use in their computers. Also I pointed out that whilst most people do not have the time, energy or expertise to write articles, most have something in their files which they would like to share, and which they could submit with a minimum of time and trouble.

After discussion it was decided that a trial disk be prepared and that we defer consideration of how often it be issued until its success or otherwise should be determined. I as the instigator have assumed responsibility for getting this first issue off the ground, but I will obviously need help.

YOU --- yes Y O U --- can assist as follows :

1. Volunteer to be part of a small "ways and means" committee.
 2. Volunteer to help with disk copying when and if necessary.
 3. Look through all your files to find something which might be of interest to fellow members, such as -

Pictures.	Music.
Mandelbrots.	Puzzles.
Games.	Utilities.
Programs.	Slideshows.
Tips & Hints.	Animations.
Articles.	Questions, etc, etc.
- N.B. Items must be original work or public domain.

Please do not stop your contributions to Workbench. We are looking for things which for obvious reasons cannot be accommodated there and which are more suitable for disk. Any articles which are suitable for straight printing should remain the domain of Workbench, but if for example you are writing about something which needs say colour illustrations, disk would be the answer. The Disk Magazine is to be an adjunct and not a competitor. It will not necessarily be distributed to all members, cost being a factor, but will need to be ordered and paid for in the same manner as library disks. (At least that is the present intention - who knows what the future may hold?)

I urge all members to get behind this idea and help to make it a success. It is hoped to have something to appeal to everybody; now it's over to you. Suggestions gratefully received. My phone number is 798-6552, preferred hours week-days 7 - 9 am and 8 - 10 pm.

REVIEW OF NEW YAMAHA PSR-4500

by Norm Christian.

At first glance this may seem out of place in an Amiga magazine, but this late-release keyboard teams so well with Amy that they could have been made for each other; my MIDI cable has assumed the status of an umbilical cord. A recent demo of its small brother, the PSR480, at one of our meetings resulted in a run by our members on the few remaining stocks, so I guess there is enough interest out there to justify this article. Alas, at around \$1800 it may not sell so readily, but I can assure you it is worth every cent.

The full size keyboard covers 5 octaves and is 4 feet long including the built-in stereo speakers at each end. The voicing is excellent, with 100 preset sounds using the new DASS technology which starts with a digital recording of a real instrument. These are available in either orchestral (polyphonic) or solo (monophonic) modes or several different combinations of both, including one called dual voice which enables you to stack any two of the 100 voices. In addition all voices can be edited using 9 different parameters and the edited versions remain in memory for instant call-up, which means that you can have up to 200 instantly available sounds, and to build an almost unlimited library of voices. Amy is invaluable here because the keyboard can initiate bulk data and panel data dumps.

The keyboard can be split at 4 different points and different voices assigned to either hand, in which mode the left playspoly and the right mono. However in rhythmic mode (Yamaha Auto Bass Chord mode) polyphony is available in both hands. For beginners, single finger chords are available in the left hand and harmony from a single note in the right, so you can make beautiful music with only one finger in each hand. Again for beginners, there is no need to select voices, as each of the 100 rhythm styles not only plays drums, a bass line, two chord lines, breaks and endings, plus a variation, using pre-programmed instruments, but can also select a suitable melody instrument and add strums, duets, repeats, riffs and all sorts of surprising goodies to the right hand, controlled by a single button called Solo Styleplay.

There is much more, of course. The serious musician who wants to make up his own accompaniment patterns can do so and has available 56 percussion instruments for the drum part, 100 voices for the bass part, 23 instruments for strumming chords which can be overlaid with arpeggios or any other patterns using 26 different instruments. The combinations and permutations are truly mind-boggling when it comes to these "custom" rhythms, and 5 of them at a time can be saved and remain in memory. Again, Amy comes to the rescue and enables any number of these to be dumped and re-loaded. To date I have created a wide variety of over 50 customised styles, all on disc.

3 degrees of digital reverb and 2 degrees of sustain are provided. An on-board 4 track sequencer stores up to 4 songs. Registration buttons enable the saving of 4 overall presets which include all information including rhythm speed & style, voices, split, reverb, sustain, duet, 3 drum pads and the individual volume settings of sound effects, drums, bass, accomp chord, orchestra and solo.

The 3 drum pads can be loaded with any selected percussion sounds and each contains 8 sounds which can be played along with the music so that you can make fill-ins additional to the 3 breaks (which by the way are different for each of the 100 rhythm styles.) An unusual innovation is the provision of two roll bars at the front which can be operated by the heel of each hand. The right controls any one of 6 selected functions and the left is a pitch bender.

The instrument is touch sensitive to a degree never before attained by Yamaha in my opinion and also can transpose into any key.

For the first time ever, a RAM pack is provided instead of being an optional and expensive extra. It is impossible in a short article to cover all of the finer points and in particular some of the more incredible things which I have discovered and which are not included in the manual. This is a truly innovative and sophisticated instrument with plenty of MIDI commands and the ability to satisfy and interest musicians at all levels. It has a multi-timbral mode which can play a different instrument on each of channels 1 to 15 and drums on 16, making Yamy a perfect partner for Amy, who fell in love with him at first sight, or should I say tickle.

Members who want further information may look me up in the help network, which hopefully has been again corrected this month. If not, the proper digits are 798-6552, and calls should preferably be weekdays between 7am - 9am, or 8pm - 10 pm.

Norm Christian.

AUGADS

All ads placed here are from members only, but are free of charge, and will be displayed only for one month unless re-submitted.

For Sale

Plotter: Mannesman-Tally PIXY-3. A4 paper flat bed. 3 Pen. Parallel Centronics interface. Not HPGL compatible but works OK with Aegis DRAW programs. - \$ 300

Printer: BMC 9 pin tractor feed. Epson compatible. - \$ 200

Memory: PROTON for Amiga A1000. 1 MByte outboard pass-through. - \$ 450

Phone John (03) 233-8151

For Sale

Two Portable Keyboards, digital, 61 fullsize keys, Yamaha PSR70 & 90, Stereo 2x5w, 16 FM solo + 16 Poly Orch. Voices + Duet & Trio, 3 Sustain & Symphonic, 32 Rhythm Styles + 3 Custom w/53 voices, 3 Handclap Var, 3 splits, 48 Fillins w/Touch Bar, 16 Intro/endings option ritard, 3 track sequencer w/pause, saves DIGITALLY to tape etc., 3 compl. Registr. Memories, 21 voice PCM Drum M/c w/accents, Chord Mem., Transpose & Pitch controls, MIDI in/out, 3 way pwr(Batts, AC,

Car) Cost \$1399. PC, in carton \$800 ONO. 895 5208, Blackburn, all hrs.

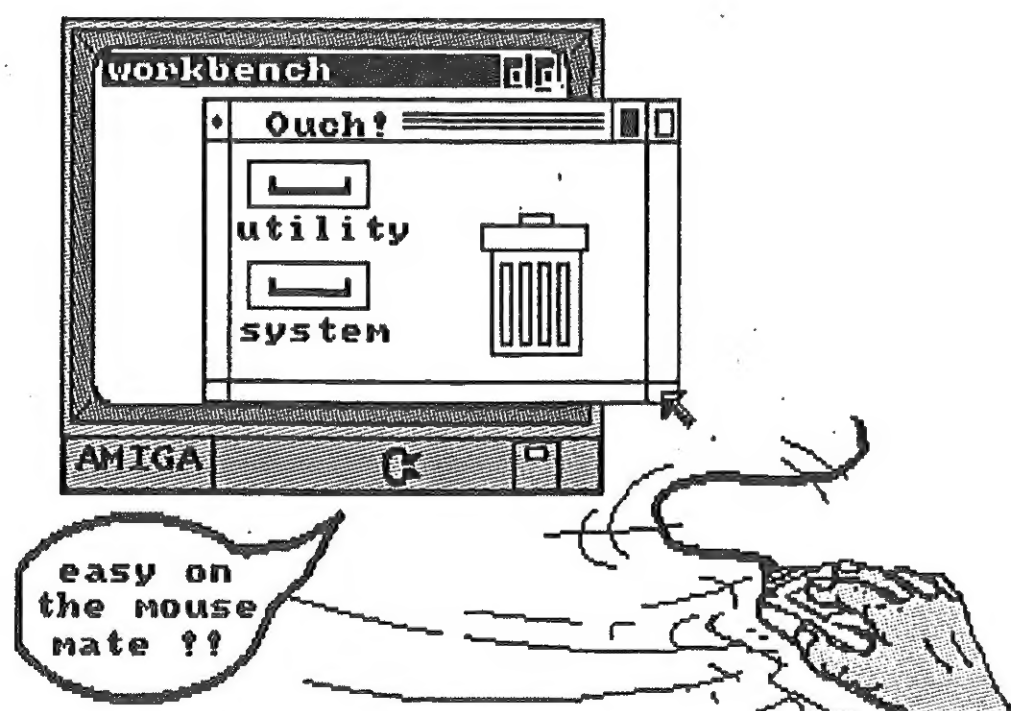
Open Letter to Members

If you do anything interesting with your Amiga then why don't you share it with the rest of us? One article - or piece of philosophical prose - in the Workbench will enable you to communicate with EVERY member not just the few you may talk to. If you haven't actually done anything interesting then why not write about what you would LIKE to do with your Amiga - others may share similar goals or your plans may be interesting in themselves. If ALL you do is play games then tell us about the games that are so great you would spend all that money just to play them! Does anyone use the Amigas in their jobs - if so what do you actually use them for?

The motive I have in this letter is that as a country member all I get for my \$25 is the Workbench. If you don't write about it I won't know about it. May I take this opportunity to thank all those who have contributed as I found most of the articles interesting and some even helpful. Please keep it up. To the rest how about putting aside 15 minutes of your time to write a FEW lines on "Why I love my Amiga". It doesn't have to be more than a few lines. You may be rewarded with someone, knowing your interests, writing an article on something that will be of interest to you.

Don't worry about your spelling. I'm shore Con will correct any mistakes to save you any imbarisment - won't you Con? [ed's note - I'll try] And don't feel your article has to be filled with fragments of C code - most of us can't read that anyway.

From a country Amigos.



by John Casey

ANSI CONTROL SEQUENCES

I recently wanted to display text in the CLI window in more than one colour. Examining the ROM Kernal manual (V1.1) revealed that screen and keyboard input to the Amiga is managed through the Console.Device which treats all input as if it is an enhanced ASCII terminal, consequently by using ANSI control sequences many of the screen attributes such as text colour and type may be controlled by sending special sequences of characters to the Console.Device. So all I needed to do was transmit the correct sequence to the Console.Device to change the colour of the text.

One of the results is the programme below. It is similar to the CLI command Echo except a colour argument is included to define the colour of the text. The form of the command is

CEcho col "text to print"

where col is 1,2 or 3 (anything else is ignored)
"text to print" is the text you want printed to the screen.

Note that inverted commas are only required if you include spaces in your text message.

The ANSI sequence I based my programme on is as follows :-

<CSI> <style> <;> <foreground> <;> <background> <;> <m>

CSI	Control Sequence Introducer
style	Type style eg plain text, italic, bold-face etc.
foreground	Foreground colour
background	Background colour

All the variations of each parameter is listed below.
<CSI>

Control Sequence Introducer (hex=9b decimal=144)

<style>

0 plain text
1 bold-face
3 italic
4 underscore
7 inverse-video

<foreground> (as two ASCII characters)

30 colour 0
31 colour 1
32 colour 2
33 colour 3
34 colour 4
35 colour 5
36 colour 6
37 colour 7

<background> (as two ASCII characters)

40 colour 0
41 colour 1
42 colour 2
43 colour 3
44 colour 4
45 colour 5
46 colour 6
47 colour 7

To make the above a little clearer (I hope) an example is in order. To make the text output bold-face, colour 3 as foreground and color 0 as background we send the following characters:-

(in hex)

9b 31 3b 33 33 3b 34 30 6d

(in ASCII)

"<CSI>1;33;40m"

where CSI represents the ASCII character 144 (decimal) or 9b (hexadecimal)

Other control sequences are possible to move the cursor, delete a line, or to scroll etc.

N.B.

ASCII stands for American Standards Committee for Information Interchange and ANSI is the American National Standards Institute.

[Ed's note - sorry, PPage removes the spacing before the first character of each new line so indenting is lost]

/* CEcho a colourful alternative to Echo */
/* Works like Echo but accepts a CLI colour parameter */
/* written on the 18th. January 1990 by J.S. Elston */

#define CSI 0x9b

main(argc,argv)
int argc;
char *argv[];

{

/* make sure we have correct number of arguments */

if (argc != 3)
{
printf ("%s colour text",argv[0]);
exit();
}

/* check that the data is within the correct bounds (ie 1,2 or 3) */

if ((argv[1][0] > '3') || (argv[1][0] < '1'))
argv[1][0] = '1';


```

/* now output ANSI string to change colour */

printf ("%c0;3%c;40m%s",CSI,argv[1][0],argv[2]);

/* reset output to standard colour */

printf ("%c0;31;40m",CSI);

}

```

Using Aegis Draw by Rudy Kohut

Last year I bought a copy of Aegis Draw V 1.4 at a very low price, as this software has been superseded at least twice: by Pro Draw and Draw 2000. This version is still being sold, however, and there may be readers of this newsletter who are interested in the package.

Draw 1.4 is a powerful structured drawing package in its own right - and can be difficult to master. It is only recently that I have given the package some serious attention, using it to help redesign my house. In doing so, I have made some changes and learnt some things which others may find interesting.

The first thing to do before trying what follows is to make a copy of your "Draw:" disk. The program is not copy protected so this is easy to do using "DiskCopy" from the workbench environment. Don't forget to "Rename" the copy to "Draw"! To get the maximum benefit from what follows, you should have a V 1.3 copy of the Workbench.

To improve the performance of the program, we need to alter or add to the programs on the "Draw" disk. Start your Amiga with a standard workbench disk and open up a CLI window. Hopefully you have a second drive to make using the CLI easier! With the "Draw" disk in one of your drives, call up a <DIR> listing of the Plotter directory, containing all the plotter files. Either <Delete> the directory and all its contents, or delete just the plotter files you don't need, to free up space on the disk. Next the "Devs/printers" directory should be cleaned out of all the printer files. Be sure to retain the "devs/printers" directory! Lastly, delete all the "Preferences" directory.

Now for some additions! Copy the following files from your V 1.3 Workbench disk to the "Draw" disk:

From WB:c to Draw:c - "LoadWB", "SetPatch"
(This brings our ROM routines and Workbench up to date)
From WB:devs to Draw:devs - "printer.device"
(This allows us to use the faster 1.3 printer drivers)
From WB:devs/printers to Draw:devs/printers - (your printer file eg. EpsonX[CBM_MPS-1250])
From WB:libs to Draw:libs - "mathiecedoubbas.library", "mathiecedoubtrans.library", "mathtrans.library"
(This gives us access to faster 1.3 math libraries)
From WB: to Draw: - "Prefs" directory
(This gives us the new 1.3 graphic printout options for better

results)

You may also want to check whether you have the appropriate "Keymap" file in the "devs/keymaps" directory. I also recommend strongly that you obtain a copy of the public domain program "overscan". It is available on a "FISH" disk. Copy the program "overscan" to the Draw:c directory (it is found in the directory called "Overscan" on the FISH disk - DO NOT copy the entire directory! Look in the "Overscan" directory for the "overscan" program).

Now, using your favourite text editor, open up the Draw:s/startup-sequence file and make the following changes:

1. At the top of the file add: "sys:c/SetPatch > NIL:" (not the quotes) 2. If you have enough memory, add: "Addbuffers df0: 20", etc for each drive (don't exceed 30 buffers per drive). 3. At the bottom of the file, before the LoadWB command, add these two lines: "sys:c/overscan > NIL:" (only if you have the overscan program in your c: directory!) and "Draw"

Okay, we are now ready to go! Restart your computer using your Draw disk. Because of the changes to the startup-sequence, the disk "boots" straight into the drawing program itself - thus saving about 40k of valuable CHIP memory because the Workbench screen is not (yet) activated. If you have overscan running, you can now resize the drawing window to the full size of your monitor - no more black space at the bottom. However, before you start drawing, we need to configure "Preferences". Quit the program; workbench will now load. Open the "Prefs" directory icon and choose the "printer" icon. Set all the printer parameters you need. I recommend that you also get into "graphics 2" and select "Smoothing - ON", and a print "Density" higher than 1, if your printer supports it. It slows down the printout, but the improvement in quality is worth it.

Once out of preferences, I recommend that you copy across the "Drawings" and "Parts" drawers to an empty initialised disk, to be used as your primary disk for storing your creations.

Back in the Draw program itself, here is a tip to those using a printer for output rather than a plotter. The output to printer from V 1.4 of "Draw" is actually handled like output to a plotter. The manual itself assumes that the printout is just a screen dump - while the V1.4 Addendum card merely says that printing is now much improved. Indeed it is! In the manual, in the sections on FORMAT, SCALE AND PLOTTING, you can assume that references to plotting also apply to printing. When you choose "Print" from the Project menu, you have a choice to do a screen dump or to print the drawing. If you choose the latter, a requestor will appear asking if you want the print scaled. If you choose "NO", the printer will print the drawing at the scale it appears on the screen. If you choose "YES", the program checks the FORMAT settings to see what scale you chose and where to start the print from.

I have printer paper that is effectively 21cm x 28cm in size, so I have set the "Width" size in the FORMAT to 21 (units) and the "Height" to 28 (units). Then as "scale" refers to "the number of units per inch of output", I set the scale value to 2.5 (1"=2.5cm). This gives me an exact, scaled printout which fits my paper! (By the way, it took me a day or two to figure this

out, as the definition of "scale" was hidden in an appendix dealing with Draw file formats.)

Here is another tip. Start your drawing as close to the bottom ruler as possible. I did a drawing starting (intuitively) at the top of the screen, which left a lot of "white space" between the bottom of the drawing and the bottom ruler. For some reason, the program converts that "white space" into linefeeds at the top of the printout! Hence my drawing only half appeared on my page - I was able to correct this by setting the "Y" value in the FORMAT option to move the bottom ruler up near my drawing.

As I said, Aegis Draw V1.4 may be obsolete and not supported by Aegis anymore, but it is still a powerful drawing package and well worth the low cost of the package. I hope these comments prove useful to a reader and will let you use the package more effectively. If anyone else uses Draw, ProDraw or Draw 2000, I would like to read their comments in this newsletter.

Multiple Joystick/Dongle Port

For some time now I have been using Superbase Personal which requires a dongle in gameport 2. This quickly became a hassle when I wanted to use a joystick, because I had to fish around behind the computer to insert the joystick and then fiddle again when I was through playing to re-inset the dongle.

My first thought was to just get an extension cord with a DB9 at each end. Then I thought, what would happen if I made up a "Y" connector? What happened is that it WORKS. In fact, since I had no trouble with it at all, I made up an "E" (or 3 way) connector cord. This allows me to have a choice of 2 different joysticks and also have the dongle plugged in at all times. Construction is simple, but care is needed to ensure that there are NO shorted wires.

Parts List:

- 1 DB9 S socket with cover to plug into the computer
- 2 DB9 P pin sockets (3 if "E" config wanted) to plug in joysticks / dongles
- 1 Length of 9 conductor round or ribbon cable
- 1 suitable box to hold sockets (I used an audio cassette tape box)

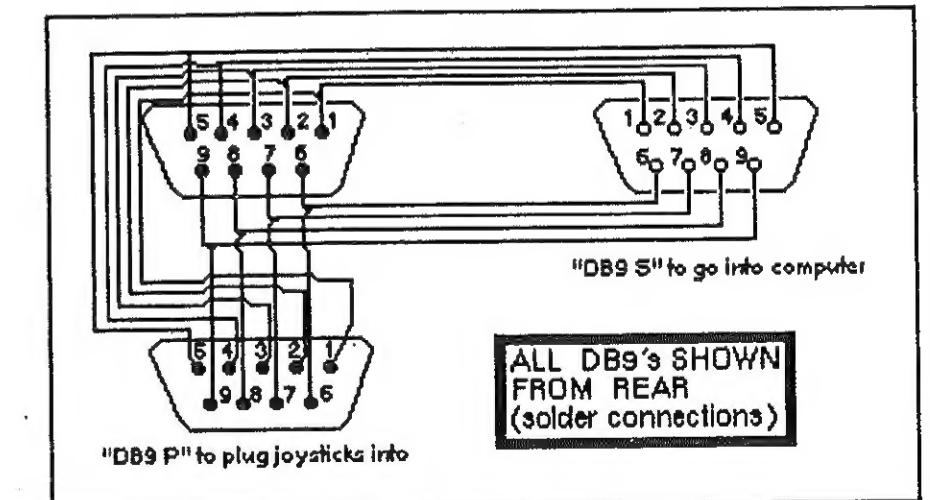
Construction is just a matter of soldering all the pins in parallel (be careful that you have taken account of orientation of mating pins) Check carefully for shorted wires and insulate if necessary. If 3rd. socket is desired just solder in another in parallel. The drawing looks more complicated than reality. Sorry I'm not a draftsman.

Note: Pin 7 has 5volts it does not need to be connected if you don't require power.

I have used my "E" cord for about 8 months now and have had NO problems or in-compatibilities.

I offer this information in good faith with the knowledge that it functions on my system. However, I will not be liable or responsible for any damages or problems you might have.

Amie



MIMETICS AUDIO DIGITIZER AND THE AMIGA 500

The purpose of this note is to pass on a recent experience of mine to any A500 (and presumably A2000) owner who might be contemplating purchasing a Mimetics Soundscape Sampler.

Why would I want the Soundscape digitizer anyway, rather than (say) the similar products made by Perfect Sound and Future Sound? Well, my main reason is that the SS digitizer is the only one which works with Mimetics' Soundscape ProMIDI Studio software (which I have). The advantages of using Mimetics' software include -

- * the convenience of being able to sample a sound and then play it immediately on your keyboard, instead of having to save it to disc and then load it into a sequencer,
- * the superior Mimetics sound file format (not IFF), which includes an adjustable volume envelope, adjustable levels of velocity- and pitchbend-dependency, the ability to save an instrument with a higher sample rate than IFF (which is fixed at 8563Hz) and the ability to multisample across up to 10 octaves,
- * the fact that the AudioMaster sample-editing software (which I also have) can use the Mimetics sampler for input, and
- * the fact that it plugs into the "joystick" port, leaving the serial and parallel ports free.

Although the Mimetics sampler was one of the first "add-ons" for the A1000, the AmigaWorld hardware round-up lists it as being suitable for all Amigas. When I placed my order through Lightspeed, they confirmed that the same sampler suited all models.

The sampler duly arrived, and I booted up the accompanying software (essentially just a copy of the keyboard and sampled-sound player from Soundscape). Loading and playing sounds from disc worked Ok, but there were problems with sampling.

The first few samples I made were very noisy, so I switched to AudioMaster to take a closer look. The "oscilloscope" monitor showed a heavy periodic background noise, even with no input. I tried all of the usual checks for earth-loops etc., to no avail. Then, by accident I discovered something very interesting - the sound of the mouse being rolled around could actually be heard through my monitoring system, as well as the background hum!

This seemed vaguely relevant, since I knew that some early games (eg. Marble Madness) seem to classify the mouse and joystick ports the "wrong" way around, so perhaps the sampler was trying to read the mouse port.

At this point, I decided to carry out the obvious tests. I got a friend to try the sampler out on his A1000 - he reported that it worked perfectly, producing clearer samples than his Perfect Sound digitizer. Nothing wrong with the sampler, so I then tried it out on someone else's A500. Exactly the same results as I had observed - nothing wrong with my Amiga.

I packed it up and mailed it back to Lightspeed with a detailed letter of explanation and the suggestion that they contact Mimetics. After a few weeks had elapsed, I phoned Lightspeed and it was apparent that I wasn't going to get very far, so I gave up and settled for a replacement Future Sound 500 sampler.

PostScript:

What do I think of FS500? Well, it works exactly as you would expect, and the ability to sample at up to 41KHz means that you can get very clean samples (note that the Amiga hardware can only play samples back at 28KHz, but the extra "oversampling" resolution is still valuable, since you can edit and process the sample in high-resolution before saving at a slower rate). It also has stereo sampling capabilities (which don't interest me) and a built-in Mic pre-amp (I prefer to use the ones in my mixer).

The software is pretty much the same as the original software supplied with FS1000 - ie. all but useless! You need AudioMaster to do any editing of your samples, and to save in Sonix format (if you need it). It's also useful to have the Perfect Sound software if you want to make multi-sampled IFF instruments (eg. drumkits). Don't throw away the FS software, though! Useless as it is, it's still the only way to create sound files for Dynamic Studio (New Wave Software's sequencer/drum machine). You have to load an IFF sample into the FS software, then save it in FS format! (Unlike New Wave's Dynamic Drums, which uses IFF samples - isn't standardization wonderful?)

A last word on standardization. Clearly, all of these different formats exist because of the limitations of the IFF standard. The same problem exists with the SMUS standard, which is just too limited to be of any serious use (although the concept

is good). Let's hope that future writers of Amiga software include a facility to read and write MIDI files. These have a much wider application (being standard with other equipment and software) and no limitations other than those imposed by the MIDI standard. To my knowledge, the only Amiga software incorporating a MIDI file facility is Intelligent Music's "M" (You might get a review of this great program out of me one day).

Bill Buttler

13 January 1990

[ed's note - the club has not verified the information published henceforth and therefore cannot confirm nor deny the report. The article itself has been confirmed as being real, not a hoax as you will see by the "Anonymous" at the top. Perhaps the representative from Commodore coming this next main meeting will be able to supply us with an explanation...]

Hopes Dashed

By Anonymous

(Additional note: I wrote this article a while back now, and had almost decided not to post. Sorry if the info is a little 'old')

I work for a CBM dealer in Melbourne. A few AUG meetings ago, we had some Commodore Rep. telling us how great everything would be becoming here in Melbourne in terms of tech. support and user support in the future. Well, full of great expectations, the next week I called CBM Melbourne about an unrelated matter, and happened to mention the meeting and their representation. Their reply?

"Huh?"

"We weren't aware of that!"

Ok, fair enough. Melbourne hasn't always been the source of information. So I left it be. Then at the next months meeting, low and behold, CBM's rep. failed to show, after saying he would be there [Ed's note - this has an explanation].

Well, again, during a call to the Sydney tech-support team, on a dealer related matter, I mentioned to them "When? Where? How?" of the Melbourne support team. The reply?

"Huh?"

"We weren't aware of that!"

WELL! I ask you: If CBM Melbourne and CBM Sydney (And the relevant tech support Sydney group at that) weren't aware of their own representatives pledges, what hope do we have, the end users?

I realise I am trashing CBM here, and I don't like doing it, but it is time they got off their proverbials and pulled their act together.

ANON.

SOFTWARE PIRACY

I've been thinking about writing this article for many months now, but like most of my ideas, it's been sitting on a shelf full of long-unused C64 software, gathering dust. In fact, this article may never have been written if it wasn't for Christmas! Standing out from the wreckage of the Christmas morning unwrapping session was a new Amiga game - "Shadow Of The Beast", from Psygnosis. Like most users, it was a week later before I actually took the time to read the manual that came with the game. (Short sidetrack - this is not a review of the game. However, you can spend your money on a lot of worse things than a copy of this game! If you ever wanted a product that shows exactly what the Amiga can do with sound and animation - this is it!). The manual is a pretty standard sort of job, but at the end it includes a brief comment from the actual programmers who have done the work. To quote briefly from their comments: "Unless attitudes to piracy on the Amiga and ST change we may ignore these machines entirely ... piracy may well be the final nail in the coffin for the ST and Amiga." Now while the threat to the ST doesn't really worry me that much (what a cynical attitude!), I think the point here CANNOT be ignored. As a full time programmer myself, I can fully appreciate the time and energy (not to mention money) that goes into creating software. In the case of "Shadow of the Beast" it was about 10 months of effort - almost a full year's work! If we, as users, think companies will continue to pour the efforts into creating the software we want, and will then sit back and smile while their products fail to sell (because we're all buying pirated copies from the 'Trading Post'!), then one day soon we'll find there's no more company, and no more product!

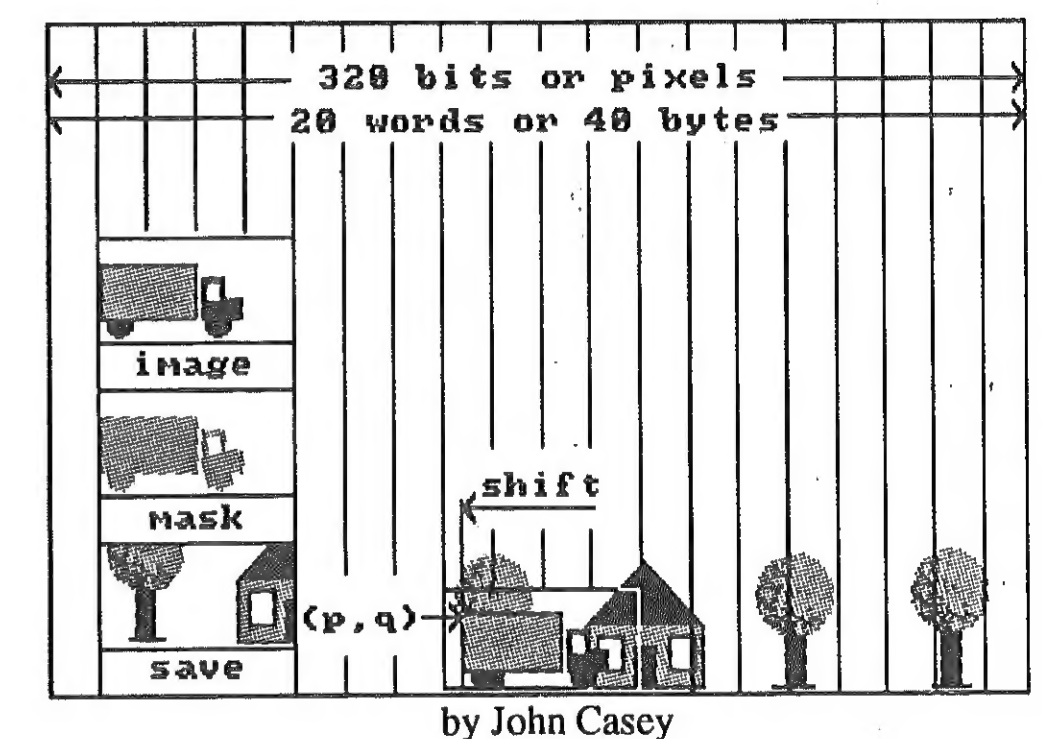
What really brought all this to a head, however, was the people I've been talking to over the Christmas break. On at least four occasions in the past month I've had people - friends, workmates and casual acquaintances - offer me pirated copies of Amiga software! One said "I know a bloke in Sydney who has hundreds of disks of Amiga games - just let me know which ones you want". Apparently the end of that particular chain is somebody who works for 'Imagineering', and therefore has easy access to hundreds of new releases! Another friend offered to put me in touch with his father, who also had "plenty" of disks he was willing to copy for me! The image of the teenage hacker / pirate took a bit of beating there, as the father was over 60! Going back a few months, I advertised in the 'Trading Post' to sell my C64 software. One of the people who turned up in answer to the my ad was shocked to see my 15 Amiga games - "I've never seen so many original packages in the one place!" he said. Apparently, he had virtually every game I did, but for most he had never seen either the box, or the manual! I could go on, but the point is that none of these people are professional pirates. They are all pretty ordinary users. Nice people to know, easy going and cheerful - and helping to send Amiga software companies to the wall!

Now don't get me wrong - I'm not trying to preach to people here. Rather, I'd like to consider this article as being a 'trigger' to get people thinking about this issue. Software piracy should concern any Amiga owner, as we are using a machine that still has not been accepted into the general 'mainstream' of computing. Unlike an IBM owner, who knows that the overwhelming volume of PC's sold will ensure that companies will keep try-

ing to enter the market, the Amiga needs to hold onto those companies that cater for it, and to attract new ones. The rampant piracy simply makes it a fair more unattractive decision to write for the Amiga.

As a final point before I step down and pack the soapbox back into the garden shed, I'd like to suggest that there is one step we can all take immediately on this issue - don't buy software from the 'fake' ads in the "Trading Post" and other media. We all know how to tell the 'real' ads from the 'fake' ones. The real ad says "For Sale - Dragons Lair for Amiga, in original packaging - \$45", while the fake says "For sale - Dragons Lair for Amiga, in original packaging - \$5". Lets get serious! Selling a \$90 game for \$5!! (apologies here to any desperate "Dragons Lair" owners who've been frantically trying to sell for weeks!). The 'fake' ads also normally include a copy of "Word Perfect" for \$40, or something similar! When you ring up one of these people (and I've done it, to see exactly how they justify selling software at those ridiculous prices) they tell you that either the "packaging was lost and the disk damaged, so it's only a copy" that they are selling (despite what their ad said), or else they tell you "sorry, it's been sold, but I could let you have my backup copy if you wish". Buying from these people is double-trouble, 'cos you not only hurt the programmer and company that originally made the product, but you also place money into the hands of someone who will probably use it to go out and buy more blank disks, so he can make up more copies to sell!

Anyway, enough is enough. I've cleared my chest. This situation has existed for as long as commercial software has been available, and I guess this article won't really change any of that. But before I head back into the dungeons of 'Shadow of the Beast' I'd just like to remind all AUG members "it's your Amiga, Ralph!"



THIS
SPACE
FOR
RENT

PrtSc

I read a query in a magazine from a new Amiga user asking why the PrtSc (PrintScreen) key didn't work, and the answer given was that the key was only for IBM emulation and didn't work on the Amiga.

I found a way around this, and although it's not really what was intended, and I'm not really 100% happy as I would have preferred to use the ALT key, (which is the standard key for accessing things on the front of keyboard characters), I found it a very useful fix.

First, you need a program such as Makcie or Popcli, which lets you define hotkey combinations. I use PopCli4 [Ed's note - I think he means v1.4] as it lets me have more than one key defined, and I have one for a new cli and one for the screen dump.

Infact PopCli4 lets you define any key for any command, but it seemed logical to have the screendump program assigned to the PrtSc key, so that's how I have it set up. The only slight complication is that by default PopCli uses the standard keyboard, so that to use the Left Amiga Keypad* instead of the Left Amiga Shift 8 *, the key had to be defined as the key's raw hex code. As noted in a previous workbench, the code for the NK* is 0x5d

So, to activate the PrtSc key, I have in my startup-sequence the following:-

```
c:PopCli add 0x5d sys:printutils/graphicdump
```

Note that the 'add' is there because I have other keys defined to PopCli in previous lines, and that the path I have (sys:printutils/) is because that's the way I've re-organised my workbench, you would obviously specify wherever you have your screen dump program (I use the standard Workbench 1.3 GraphicDump, you might prefer something else.)

Nothing Earth-shattering, but damned useful. Any hotkey program which lets you specify the key should work, and you don't have to have workbench active to run it.

Cheers,
j.r.

FIRST CONTRIBUTION (BY DALE ANWYL)

Well here I go my first saug text file contribution. Sent more because of Con's pleadings than any thing else, maybe this file should be called Shalamars ravings. Ok some of you amiga users out there may call me a pioneer. I have had my amiga almost since the first shipload landed on the Sydney docs, I first fell in love with ami at the Melbourne computer show where Commodore had a large boot showing ami jumping through hoops, yep I was hooked.

In those days all the magazine writers said "ahhh amiga sets the standards of computing in the 1980's" but lots more said "ahhh

great games machine but when is the software going to arrive to show off this beast." It is true that Deluxe paint version one must have sold more Amigas than any single piece of software past and future because that was virtually all there was.

Well since then I have seen the amiga mature and grow. Seen commodore go from one blunder to the next with no clear goal in mind (has it changed?) Seen two more amigas added to the family, seen the beloved A1000 dropped as a renegade pioneer of CBM's past (still think it outshines both 500 and 2000 units even if it's only measure is reliability), I've seen the buggy operating system 1.1 go through its incantations as 1.2 now 1.3 with the new beaut 1.4 just round the corner. I've seen the guru show his head at just about every session until now you just about have to rub the expansion port to get this shy little bloke to pop up his unpopular head, now I here he is to be evicted from his home all together (is there no end to the conspiracy to kill off every bit that makes amiga what she is).

ahh but back to the gist of all this. Ami was my first computer and like all good things the path to enlightenment was long (lots of lost hours and empty cans of amber fluid not to mention packs of cigs), to help I joined AUG back when the cover of workbench did not even have a circulation printed for all the world to see, (I missed workbench V1 I3 so can not tell if it started with that issue), living in the sticks (shepparton) I did not have the opportunity to sit in on many of the club meetings (the little lady had a big fit when I placed ami on the dining room table where it lived till last year with out the day trips to melbourne). but I did form one or two long distance mates (thanks to ex editor Peter Jetson) who kept me in computer books and amiga manuals for the first two years.

I began to look round home for the mates that would last till this day. Yep there were just two and though one now lives down in Melb. the other helped me start our users group. now SAUG (shepparton amiga users group) has been round for 3 years and I hope we have helped all those that ventured through our doors just a little, we may not be as big as AUG or have the resources of AUG but we are all mates, all 30 of us. We don't all end up at the meetings all the time and members fade in and fade out but it's the mateship that holds it together so far.

Now my bank balance has never been the same and the lady is still waiting for her ring (5 years down the track) but my system has grown and so now it's 3 meg of ram, 2 drives, a modem and sundry mags and books round the room and I won't go in to the boxes of disks that congregate and multiply in every nook and cranny. Yep it's been great and if I had it to do again I would. And as I have just opened Shepparton's first bbs, a whole new door has opened for ami and me and the lady is still with out the ring and for the most part me. In the short space I have left I wish to thank the club, the committee, Peter Jetson and Con for keeping me up to date with all that's new inside AUG. I am sorry it's taken this long to put pinkys to keys but now it's done I feel a little better, and look forward to seeing how Con does with the spelling checker [Ed's note - My spelling checker is me because if grammar has to be changed, there is no program (yet) which is capable of the changes I need]. (my worst subject at school) maybe if I have time to night I will bash out a review of bbs-pc v4.20 for your reading.

- GAME REVIEW - Gauntlet II - by Rimon Abohaidar

Most arcade goers will remember a huge cabinet in the corner of the establishment with 4 sets of controls on it, (and usually 1-4 people around it bashing the buttons and wrenching the joysticks as if their life depended on it!) The first version of "Gauntlet" was a massive hit on both the arcade and computer scene, and spawned dozens of spin-offs, one of which was Garrison, which most Amiga users would remember. For the .01% of you who don't know what the hell I'm talking about, the object of the game is for you, and up to 3 friends, to take on the roll of either an elf, valkyrie, warrior or wizard. Each of these characters have their strong points and weak points, (Eg - Wizard has greater magic potential, but is very weak in hand-to-hand combat, while the Warrior has excellent hand-to-hand combat skills, but is hopeless in magic).

A few years after the first Gauntlet was released, a sequel was made, with the original name of "Gauntlet II". Gauntlet II was simply a much-updated version of the first one. After a few more years, US-GOLD decided to convert Gauntlet II for the Amiga, and the result was nothing short of brilliant.

The object of the game is to progress through godknowshow-many levels to collect treasure and kill all the nasties. Sounds easy? Well wait till you see what some of the nasties are!! Since there are 4 classes of players, there are 4 different colors as well, so if there are two people playing with the same type of character, you can distinguish between them.

Most Amiga-owners, will only be able to play a 2-player game at the max, but if you're lucky enough (like me) to have a 4-joystick interface, the game truly comes to life, as the four of you frantically race against each other to get at the life-raising food, treasure, bonuses, etc. (You can act together as a team, but that's not as much fun). The funniest situation you can be in is when one of the players is touched by "It". This means that all the nasties go automatically for that player. The only way for the affected player to stop this is to touch another player and the "It" is passed on. I remember when myself and 3 friends were playing, one of us was "It" and all friendship bonds were put aside, as we spent about 10 minutes chasing each other around trying to pass on, or escape from, "It".

You can also get potions, which is the only thing that can kill Death, (Death is the 2nd nastiest of the nasties. The Number One nasty is the Dragon.) As well as potions, there are amulets that can give you reflective shots, invulnerability, teleport ability, power shots and invisibility.

Instead of having the usual 3 lives, you instead start off with 2,000 health points, which tick off one-by-one until zero, so unless you can grab food every now and then, you won't get very far. Other monsters include ghosts, demons, grunts, sorcerers and lobbers.

The graphics are almost arcade-perfect, sharp and clear, and the sound is just as good, (There is also a digitized voice to tell you things like who's health points are almost expired, who has entered the game, who is "It" and it even points out the dumb idiot who shot the food!).

Overall, this is a fantastic conversion, which gets a full 10/10 from me, if you are only allowed one game this year, get this one. You won't be disappointed.

IF I SHOW YOU MINE... by Mark Kelly, Swan Hill.

Being a personal tour of my Workbench disk with comments on significant places of interest.

Let's start at the very beginning...

```
; s/startup-sequence: part 1 of the startup.
; Note that full pathnames are given to speed up
; finding and loading files.
System/SetPatch >nil:
System/FastMemFirst
System/FF >nil: -0
System/wtfpatch3
System/fsdirs
Arun system/faccII 512 noio
runback -S2000 sys:system/qmouse "-Fs:qmouse.cfg"
; Continue startup-sequence from an ARP shell to use
; its resident batch commands.
ashell from s/ss
; I always have a SHELL window open on my Workbench
screen.
endcli
```

S/STARTUP-SEQUENCE NOTES:

WTFPatch3 - Patches the Intuition bug in WindowToFront. WTFPatch3 corrects the bug in Intuition's WindowToFront and WindowToBack routines. The bug causes the machine to freeze when a window pops to the front while the user is moving an icon. The patch works by making Intuition drop all icons before performing the WindowToFront/Back. By D.Jenkins. Obtained from Mach 2.6 on fish disk 254.

FastSmoothDirs 1.3 by C.Hames, downloaded from AmigaLink. Sorts directory listings and claims to speed them up. I am currently evaluating it. [Ed's note - I have timed it and tried it; it significantly reduces disk grind and read times by up to 1/2 as much (ie dir's and list's take 1/2 the amount of time!) only trouble - if you stop a listing during the read, the disk will not stop spinning, so you must let each dir/list finish]

FaccII is the famous disk caching utility. Stores most recent disk reads in memory to minimize later disk accesses. A must! ARP's ARUN is used to let FaccII run in the background.

QMouse 1.6 by Lyman Epp
Written in assembler and contains most of the features of the others (dMouse et al), in less than 4K! Features:
- Screen blanker & Mouse pointer blanker
- Mouse accelerator with adjustable threshold
- Automatic window activation

- PopCli
- Keyboard record/playback. <Left-Alt><Esc> toggles the keystroke recorder on and off. <Left-Alt><Ret> plays back the previously recorded keystrokes.
- Click Window to front. (left mouse button)
- Click Window to back. (LMB+RMB)
- Screen shuffle.
- Clock/memory display
- Allows use of a config file to set options.
- Easily disabled.

(I use Runback to launch QMouse because I had trouble using RUN >nil: and ARUN. I don't know why. Can anyone help?)

```

; S/SS - part 2 of startup, called from s/startup-sequence.
; VD0: is ASDG's recoverable ram disk. Like rad: it
; survives resets but is better in that it expands and
; contracts in size unlike RAD:.
; Mount, like many ARP commands, allows multiple parameters.
mount vd0: newcon:
; Create ramdisk only on FIRST startup, not every reset!
if not exists vd0:c
makedir vd0:c vd0:t vd0:clipboards
execute df0:s/ram
copy s:shell-startup vd0:t
endif
; I use the CLI so often I always create a ram disk.
; I dislike RESIDENT commands because they DO NOT
; SURVIVE system resets but commands in a recoverable
; ram disk live forever! (Well, nearly...)
; Shell-startup goes into RAM to save disk accesses
; when using Qmouse's POPCLI.
; Keyboard shortcuts using Assign
assign V: VD0: R: RAM: T: VD0:t CLIPS: VD0:clipboards
; Copyflags is an ARP feature that sets a COPY option
; to skip copying if the same file is already on the
; destination device or directory.
copyflags=CQ
ashell
Loadwb
endcli

```

```

; RAM DISK script
; These commands are the ones I mainly use. Copying
; the entire C directory is a gross waste of memory.
echo "Creating ram disk"
copy sys:c/copy vd0:c
copy sys:c/cdv0:c
cd sys:c
copy ed vd0:c
copy del vd0:c
copy dir vd0:c
copy makedir vd0:c
copy rename vd0:c
copy list vd0:c
copy path vd0:c
copy read vd0:c
copy ashell vd0:c
copy assign vd0:c
cd /

```

```

; s/shell-startup
; This sequence is executed whenever a new shell is opened
; (usually using qmouse's POPCLI feature).
; Alas, new shells do not inherit their parents' default
; paths or prompts to they must be set for each new shell.
path reset vd0:c vd0: ram: sys:c sys: sys:system sys:s
; Note the order of the path's tracks: the quick RAM-based
; tracks are searched first. The least likely sources of
; commands come last. SYS:C is explicitly put in so it
; is checked BEFORE System and S. S is added to allow
; scripts to be executed as commands (when their
; "s" and "e" flags are turned on).
Prompt "%N.%S> "
; ALIAS is a wonderful command! It simplifies typing for
; common commands and makes complicated commands a
breeze!
; The [] is where a parameter supplied after the command
; will be inserted when the command is expanded.
; e.g. "dirs df1:" becomes "list df1: dirs nohead"
alias c copy []
alias dirs list [] dirs nohead
alias files list [] files nohead
alias form format drive [] name empty quick noicons
alias 0 cd df0:
alias 1 cd df1:
alias v cd vd0:
alias / cd /
alias print type >prt: []
; a free and simple virus check!
alias virus install [] check
alias snap snap -t48
alias d dir
; make a script file executable
alias script protect [] +ep
alias sys df0:c/execute df0:s/sys
alias zoo modem:zoo/zoo -extract [] *
alias arc modem:arc/arc -x [] *

```

```

; s/sys, mentioned in shell-startup. Makes the disk in
; df0: the new system disk.
; Type in this script, save it as s:sys and then type
; protect s:sys +ep
; to make it executable.
; To use it, slip in a different bootable disk into df0:
; and type "df0:s/sys".
; OR if your shell-startup contains the line:
; alias sys df0:s/sys
; you can just type "sys".
; ELSE if the E & P flags are unset and you lack the ALIAS,
; type in: df0:c/execute df0:s/sys
df0:c/copy df0:c/assign ram:
ram:assign c: df0:c
ram:assign libs: df0:libs
ram:assign l: df0:l
ram:assign devs: df0:devs
ram:assign fonts: df0:fonts
ram:assign s: df0:s
ram:assign sys: df0:
df0:c/cd sys:
delete ram:assign

```

So that's how my system starts each day. Here are a few of the commands and utilities that grace my Workbench disk. Of course ARP 1.3 is a must!

QView - (V1.1 on fish 262.) A GREAT and small file reader. I still use V1.0 which is smaller than V1.1.

Undelete - source forgotten. An essential utility to recover accidentally deleted files. It has saved my bacon several times.

PowerPacker - a supergreat utility from fish 253. It crunches command files or data files, reducing their size by 30% to 50% (sometimes more). After a file has been crunched it automatically decrunches itself when you execute it. It's not necessary to have PowerPacker around for a file to decrunch itself. It's a mega-nifty hack with a wonderful user interface.

Snap - from fish 274. Preferable to SnipIt or TSnip which do the same job: cutting and pasting text or graphics from ANY console window to any other. Another essential tool.

DME - Matt Dillon's programmable editor. Beats Ed dead! Programmable? See how you can define commands... (NOTE: long lines that are split end with "...")

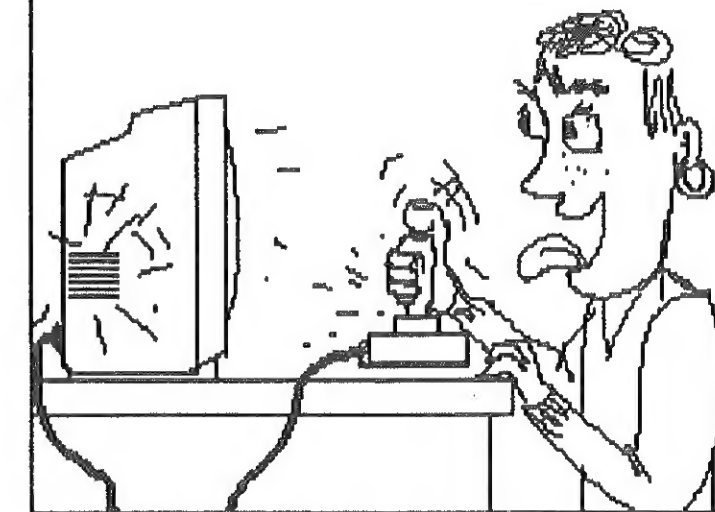
```

# Delete to Start of line
map A-bs (while !l (back ))
# wordwrap file to width 77
map A-j (repeat -1 (while x<77 right if !r ...
(wleft split) down first))
# delete empty lines
map A-z (while !b (first ifelse cright=0 delline down))
# strip leading spaces
map sa-delete (repeat -1 (down first while c=32 del))
# strip control codes
map a-f3 (repeat -1 (first while !r (ifelse c<32 ...
del ( ) right) down ) )
# paste / cut / copy
map A-p (insfile t:dme_clip )
map A-x (bsave t:dme_clip bdelete )
map A-c (bsave t:dme_clip unblock )
# add block to clip
map sA-c (bsave t:dme_tt execute (type >>t:dme_clip ...
t:dme_tt) unblock )
# add block to clip and cut
map sA-x (bsave t:dme_tt execute (type >>t:dme_clip ...
t:dme_tt) bdelete )

```

I hope this guided tour has helped some newcomers to the Amiga scene (or even hardened CLI freaks.) Most of the the tour requires you to be CLI literate. Get yourself a copy of an AmigaDOS manual and study! You won't regret the time spent doing this because 70% of the Amiga's power lies beneath Workbench level. Happy Hack-ing!

today's computer whizz



NWAUG NWAUG NWAUG NWAUG NWAUG NWAUG

North West Amiga Users Group

A Geographical Special Interest Group (SIG)
of AUG

Meetings held every 2nd Wednesday
at 7:30 pm in Rooms 19 & 20,
1st Floor

Essendon Community Centre,
Cnr Mt Alexander & Pascoe Vale Rds
Moonee Ponds 3039

Meetings Scheduled:
28/2/90 14/3/90

Nwaug members *to be members of AUG*
NWAUG annual fee of \$5 helps cover
PD, Library and Equipment costs.

Meeting Entrance fee of \$1 (\$2 visitors)
covers room hire/coffee/biscuits.

NWAUG - a Multitasking *SIG of AUG*
See YOU at a meeting soon

NWAUG NWAUG NWAUG NWAUG NWAUG NWAUG

Editor's Column
(Written 1/2/90)

This month we had a lot more articles coming in, thanks to the pleas I (and other members) made. Thanks to all those that contributed, but I'm afraid there are none left over to create another newsletter, so once again I hope people can come out of the woodwork and write articles for the newsletter. This month's articles were all very interesting, and as you can see, everybody had something different to say, so regardless of what interests you, there are bound to be lots more (of the 1000+ members of AUG) people that are interested in what you are interested in. So, please share your experiences, and be rewarded by free Public Domain disk copy tokens. (see inside front cover)

AMIGA HELP-NETWORK

The following is a list of AUG members who have volunteered to share their knowledge/experiences with others. If you also want to help and have your name listed here please contact Lester McClure (233 5664 AH). The names are not listed in any order of priority and the format may change in future listings. Please keep contacts to reasonable hours (6 to 9 pm unless otherwise mentioned) and remember one very important basis of this service - they are volunteers...

| | | | | |
|----------------|---|---|---|----------|
| Neville Sleep | - | AmigaBasic (beginner level) | - | 546 0633 |
| Rudy Kohut | - | AmigaBasic (intermediate) | - | 807 3911 |
| John Elston | - | AmigaBasic (advanced) | - | 375 4142 |
| Alan Garner | - | AmigaBasic, A/C Basic | - | 879 2683 |
| Mal Woods | - | C(Introductory), Professional Page | - | 888 8129 |
| Andrew Gelme | - | C (advanced) - AZTEC | - | 645 1744 |
| Eric Salter | - | C (advanced) - LATTICE, TeX | - | 853 9117 |
| Norm Christian | - | Amiga Art, Music | - | 798 6552 |
| Neil Rutledge | - | Music, Audio Sampling, MIDI | - | 597 0928 |
| Russ Lorback | - | Excellence!, Superbase Professional (Beg-Int) After 9:30 pm | - | 756 6640 |
| Darren King | - | Amiga Viruses, Modems/communications | - | 546 5040 |
| George Wahr | - | Side-Car, Bridgeboard | - | 376 6180 |
| James Gardiner | - | AmigaDOS, Auto-boot hard drives | - | 523 6843 |
| Stephen Bell | - | Hardware design | - | 25 8415 |
| Joe Santamaria | - | Graphic arts - DPaint, Sculpt etc. | - | 836 9129 |
| John Hampson | - | Modula-2 | - | 584 3921 |

I apologise for the print quality of last month's newsletter as it was done completely on a 9 pin dot matrix printer. Now, you might think it will never be worth trying 9 pin as a good legible print after that effort. However, it is really the photo-printing process which makes it look so bad, not the actual printer. In fact, I was so impressed by the printout that I will bring it along to the next main meeting for people to look at, and see just why I went on raving about it.

Also to look out for at this month's main meeting... The CPU WARS of the hardware SIG, where we will be comparing the processing speeds of an Amiga 1000 running a Lucas/Francis 68020 board (hopefully with a coprocessor) and an Amiga 2000 with a 68030 based GVP board - let's literally see time fly! I believe they will be running mandelbrots as a comparison, and maybe they'll have an unmodified machine there as well for an even more useful comparison.

Coming to this month's main meeting will be Lee Canet from Commodore, to get more feedback from the members of the Group.

Coming up in the near future hopefully; Arnie may be able to get me access to a professional quality printer! So what you say? Well, last month, we had a simulated 240x216 dots per inch quality print out. This month, we have a real 300 dots per inch (a la laser printer). If I get access to this printer, we will be talking about 2540 dots per inch. Perhaps you thought that was a typo - well it isn't; let's try words two thousand, five hundred and forty dots per inch. Well, I said professional quality, but I cant guarantee that I will ever get access to it.

Oh yes, I've got a couple of things to whinge about in relation to Professional Page (which despite it's few shortcomings is an absolutely brilliant program now it's version 1.3). The biggest hassle I have with it is superscript and subscript. You'd thik it'd have them as a tpestyle but NO. Instead, you've got to shift the baseline up, change the font point size and then put in the super/subscript characters and then do the reverse to get back to normal again - what a hassle! Well, now you know why there have been no supers in the newsletter since I started using PPage. The other problem I've had with Professional Page is not a bug, nor is it a feature that was left out, but just plain annoying because noone has ever changed it. What happens, is that if you type a word that is wider than the block you are typing text into, then it will disappear along with anything you type after that, unless you remove some of the characters in it. Well, you'd think that that is no problem since not many words are wider than a normal block but there is another problem - if someone has sent in an article with nice underlining or whatever like so =====etc that spans the width of the block then I lose the rest of the text. That is why once or twice I have all but lost say the end of a BASIC file listing. So in essence, I'm not to blame for those problems.

Well, I've all but run out of things to say (WOW you say, that's new) but the fact is, I was pretty drained by last month's rambles, reviews and columns. I wonder if anyone else has noted that every body who has said they will have a regular column lasts about... one newsletter? I don't care, as even one article will do. If every member wrote one page a year, that will total about an 85 page newsletter each month! Well, we can all dream, so I'll see you at the next main meeting.

Amiga Workbench

Public Domain Software Order Form

Mail to: Amiga Users Group, PO Box 48, Boronia, 3155, Victoria

| | | | | | | | | | |
|---|--|--|--|--|---------------|--|--|----------|--|
| Disk Numbers: | | | | | | | | | |
| | | | | | | | | | |
| Don't forget to specify collection name, ie Fish, Amigan, Amicus, etc | | | | | | | | | |
| Disks supplied by Amiga Users Group @ \$8 each | | | | | | | | \$ | |
| Disks supplied by member @ \$2 each | | | | | | | | \$ | |
| Club Use Only: | | | | | | | | Total \$ | |
| Member's Name: | | | | | Membership #: | | | | |
| Address: | | | | | | | | | |
| Postcode: | | | | | | | | | |

Newsletter Back Issue Order Form

Mail to: Amiga Users Group, PO Box 48, Boronia, 3155, Victoria

| | | | | | | | | | |
|---|--|--|--|--|---------------|--|--|----------|--|
| Issue Numbers: | | | | | | | | | |
| | | | | | | | | | |
| Be patient, we may have to reprint some issues to fill your request | | | | | | | | | |
| Number of issues ordered @ \$2 each | | | | | | | | \$ | |
| Club Use Only: | | | | | | | | Total \$ | |
| Member's Name: | | | | | Membership #: | | | | |
| Address: | | | | | | | | | |
| Postcode: | | | | | | | | | |

Application for Membership of The Amiga Users Group Inc

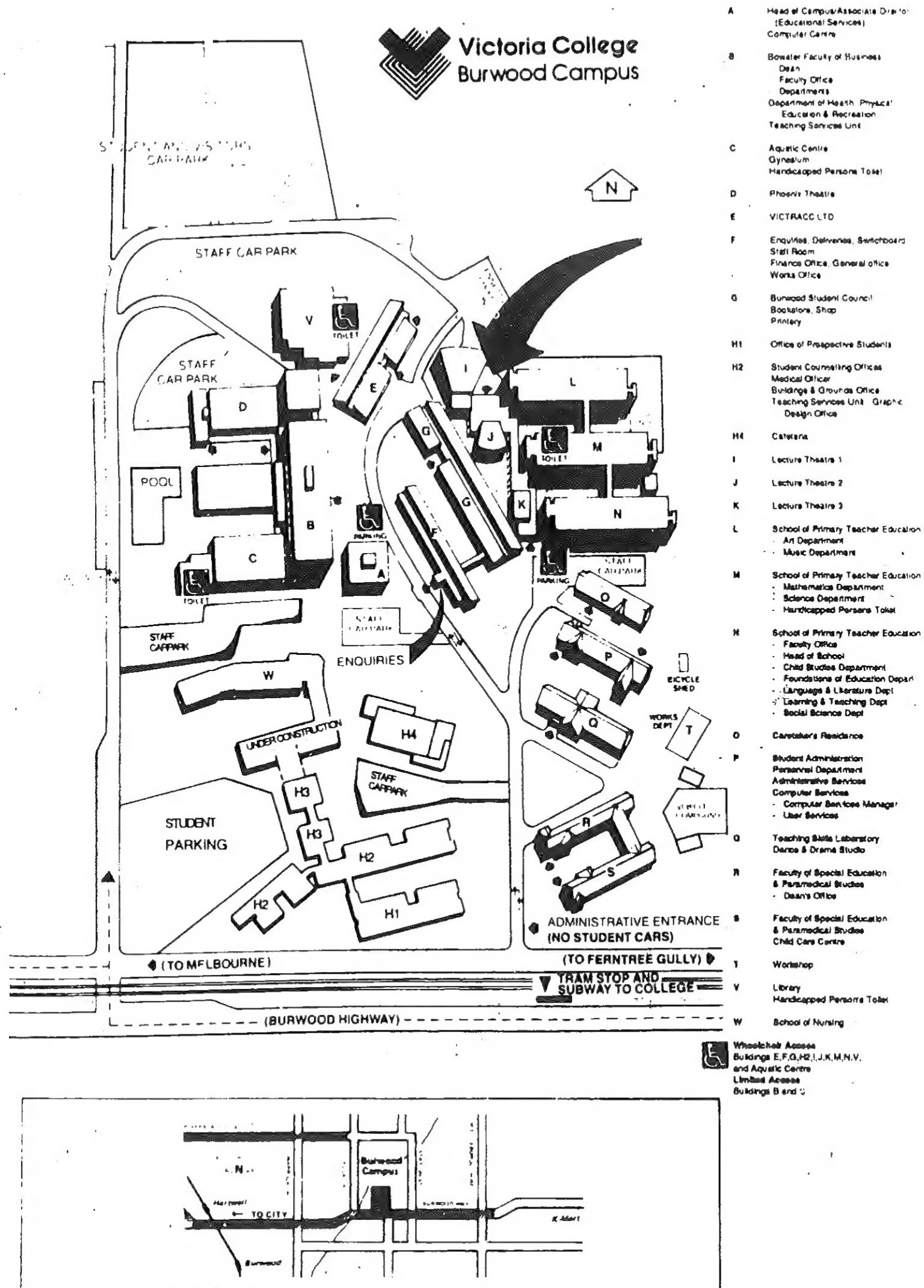
Membership is \$25 per year. Send your cheque to: Amiga Users Group Inc, PO Box 48, Boronia, 3155

Details on this side are optional

| | | | | | | |
|--|-------------------------------|------|--------|--------------------|-----------|--|
| Surname: | Year of birth: | | | Which model Amiga: | | |
| First Name: | Occupation: | | | | | |
| Address: | Interests: | | | | | |
| Postcode: | STD Code: | | | | | |
| Phone Number: | Where did you hear about AUG: | | | | | |
| Dealer's Name: | | | | | | |
| Dealer's Address: | | | | | | |
| Signed: | Date: | | | | | |
| If admitted as a member, I agree to abide by the rules of the Association for the time being in force. | | | | | | |
| Club Use Only | Date | Paid | Rcpt # | Memb # | Card Sent | |

February 1990 Amiga Workbench

AUG normally meets on the third Sunday of each month



Where is Victoria College, Burwood Campus?

Melways Map 61 reference B5.

People often have difficulty locating our meeting place the first few times. Victoria College is on the North side of Burwood Highway, Burwood, just East of Elgar road. Coming from the City along Burwood Highway, turn left at the first set of traffic lights after Elgar road. Follow the road around past the football oval, over five traffic bumps to the car parking area near the netball courts. Further up the road, to the right, you'll find Lecture Theatre 2.